



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,919	10/29/2001	Jeff Gullicksen	10.0414 (4385)	7546
22474	7590	09/14/2005	EXAMINER	
DOUGHERTY, CLEMENTS, HOFER, BERNARD & WALKER 1901 ROXBOROUGH ROAD SUITE 300 CHARLOTTE, NC 28211			JUNG, MIN	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,919

Applicant(s)

GULLICKSEN, JEFF

Examiner

Min Jung

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because in Fig. 5, the "ACTIVE" and "STANDBY" boxes in the switch modules are not labeled. Also, both the Ingress devices and the Egress devices are labeled 512, which is not consistent with the description in the specification. Clarification is required. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: In pages 22-23, the numerals referring to the Ingress device and the Egress device in Fig. 5 are inconsistent with the drawing, and therefore, the description is unclear.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 11, lines 4-5, "the first egress device" lacks antecedent basis.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 3, 4, 6, and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Roberts et al., US 6,816,487 (Roberts).

Roberts discloses mapping high bandwidth connection through a multi-stage switch between an ingress node and an egress node via a center stage comprising M center stage nodes.

Regarding the present claim 11, Roberts teaches a switch element comprising a first ingress device providing a first plurality of ingress time slots, the first ingress device connecting to a set of ingress lines (ingress stage 4, the m connections read on the plurality of time slots, see Fig. 1, col. 4, lines 53-54, and col. 5, lines 7-13); a center stage device including a plurality of ingress edges and a plurality of egress edges (center stage 8, see Fig. 1, and col. 4, lines 55-56) ; a first egress device providing a first plurality of egress time slots (egress stage 6, see Fig. 1, col. 4, lines 54-55, and col. 5, lines 13-15); and a processor configured to assign each time slot in the first plurality of ingress time slots to an ingress edge in one of the center stage devices, to an egress edge in the one of the center stage devices, and to a corresponding time slot in the first plurality of egress time slots, so that a communication from one of the set of ingress lines is sent to one of the set of egress lines over one of the time slots in the first plurality of ingress time slots, one of the ingress edges and one of the egress edges on

one of the center stage devices, and one of the egress time slot (controller unit 10, col. 4, lines 58-62, and col. 5, lines 7-18).

Regarding claims 12-13, Roberts as shown in Fig. 1 and described in the text at cols. 4 and 5 teaches the limitations. As shown in Fig. 1, there are a plurality of ingress devices 14 and a plurality of egress devices 18 each taking in a plurality of connections, which correspond to plurality of time slots in the present invention. Each connection is connected to the center stage device 16.

Regarding claims 1, 4, and 6, Roberts teaches the method steps recited which correspond to the functions of the multistage switch as applied above for claim 11.

Regarding claim 3, Roberts teaches that the number of time slots on the ingress side is equal to a number of time slots on the egress side (the number of connections being Mxm).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 5, 7-10, and 14-20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts.

Regarding claims 2, 5, and 20, Roberts fails to specifically teach that the processor (controller 10) clears all existing traffic in order to connect the set of ingress

lines to the set of egress lines. However, clearing the traffic before making another connection is an obvious way of operating a switch, and therefore, an Official Notice is taken that such clearing step is a well known step in operating a switch. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement the operation in the Roberts' switch to include a clearing step before making a connection to properly operate the switch.

Regarding claims 7-10, and 14-19, Roberts fails to specifically teach the size of each ingress router and egress router being equal to the number of center stage devices. However, Roberts shows the connections from an ingress device to each of the center stage device and the connections from each of the center stage device to an egress device. It is clear from such showing that each ingress device and each egress device has the capacity to deal with the number of connections equaling the number of center stage devices. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to include a router (or whatever it is called within the ingress/egress device) having the size equaling the number of center stage devices in order to provide the connections shown in Fig. 1. Further, Roberts teaches number of connections represented as $M \times m$ which correspond to the plurality of time slots recited in the present invention. Obviously each connection (time slot) can be assigned flexibly to certain ingress/egress data line depending on the control scheme provided by the controller 10 since the connections as shown are mesh type of connections allowing any ingress to any egress type of connection.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Gonda Patent Publication, the Fant et al. Patent Publication, and the Ricahrdson patent are cited for further references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127. The examiner can normally be reached on Monday, Thursday, Friday 7:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
September 9, 2005


Min Jung
Primary Examiner